

## EAST Search History

| Ref # | Hits    | Search Query  | DBs  | Default Operator | Plurals | Time Stamp       |
|-------|---------|---|--|------------------|---------|------------------|
|       |         | "438"/\$.ccls. and (zno zinc adj oxide) same (atomic\$) same (heat\$ anneal\$)  | US-PGPUB;<br>USPAT;<br>USOCR                       | OR               | ON      | 2006/09/24 22:20 |
|       |         | (indium adj nitride inn) same c with axis same "111" same ((ysz yttrium)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO | OR               | ON      | 2006/09/24 14:43 |
|       |         | ( ysz yzr yttri\$ with zircon\$) and ( ingan ni near ga near n indium adj gallium adj nitride) and and ("111")  | US-PGPUB;<br>USPAT                                 | OR               | OFF     | 2006/09/22 14:34 |
|       |         | ( ysz yzr yttri\$ with zircon\$) and ( ingan ni near ga near n indium adj gallium adj nitride) and (zno\$ zinc adj oxide zn adj o) and (axis and plane) and | US-PGPUB;<br>USPAT                                 | OR               | OFF     | 2006/09/22 13:46 |
| L1    | 3590    | "438"/\$.ccls. and (zno zinc adj oxide)   | US-PGPUB;<br>USPAT;<br>USOCR                       | OR               | ON      | 2006/09/24 21:53 |
| L2    | 649     | "438"/\$.ccls. and (zno zinc adj oxide)same (heat\$4 anneal\$4)   | US-PGPUB;<br>USPAT;<br>USOCR                       | OR               | ON      | 2006/09/24 21:54 |
| L3    | 2498534 | "438"/\$.ccls. and (zno zinc adj oxide)same (heat\$4 anneal\$4)(smooth\$4 planar\$ flat\$4)   | US-PGPUB;<br>USPAT;<br>USOCR                       | OR               | ON      | 2006/09/24 21:54 |
| L4    | 58      | "438"/\$.ccls. and (zno zinc adj oxide)same (heat\$4 anneal\$4) same (smooth\$4 planar\$ flat\$4)   | US-PGPUB;<br>USPAT;<br>USOCR                       | OR               | ON      | 2006/09/24 22:00 |
| L5    | 25      | "438"/\$.ccls. and (zno zinc adj oxide)same (heat\$4 anneal\$4) with (smooth\$4 planar\$ flat\$4)   | US-PGPUB;<br>USPAT;<br>USOCR                       | OR               | ON      | 2006/09/24 22:27 |
| L6    | 3       | "6806503"   | US-PGPUB;<br>USPAT;<br>USOCR                       | OR               | ON      | 2006/09/24 22:14 |
| L7    | 670     | "438"/\$.ccls. and (zno zinc adj oxide) same (step\$4 terrac\$4)  | US-PGPUB;<br>USPAT;<br>USOCR                       | OR               | ON      | 2006/09/24 22:18 |
| L8    | 54      | "438"/\$.ccls. and (zno zinc adj oxide) same (step\$4 terrac\$4) same (heat4 anneal\$)  | US-PGPUB;<br>USPAT;<br>USOCR                       | OR               | ON      | 2006/09/24 22:19 |
| L9    | 0       | "438"/\$.ccls. and (zno zinc adj oxide) same (terrac\$4) same (heat4 anneal\$)  | US-PGPUB;<br>USPAT;<br>USOCR                       | OR               | ON      | 2006/09/24 22:19 |
| L10   | 90612   | "438"/\$.ccls. and (zno zinc adj oxide) same (terrac\$4) sam  | US-PGPUB;<br>USPAT;<br>USOCR                       | OR               | ON      | 2006/09/24 22:19 |

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|     |       |  |                              |    |     |                  |
|-----|-------|--|------------------------------|----|-----|------------------|
| L11 | 1     | "438"/\$.ccls. and (zno zinc adj oxide) same (terracs\$4)  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2006/09/24 22:20 |
| L12 | 130   | "438"/\$.ccls. and (zno zinc adj oxide) same (atomic\$)  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2006/09/24 22:20 |
| L13 | 77    | "438"/\$.ccls. and (zno zinc adj oxide) same (atomic\$) same (heat\$4 temperature anneal\$)        | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2006/09/24 22:21 |
| L14 | 25    | "438"/\$.ccls. and (zno zinc adj oxide) same (heat\$4 anneal\$4) with (smooth\$4 planar\$ flat\$4) | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2006/09/24 22:29 |
| L15 | 125   | "438"/\$.ccls. and (zno zinc adj oxide) with (smooth\$4 planar\$ flat\$4)                          | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2006/09/24 22:31 |
| L16 | 2     | "438"/\$.ccls. and (zno zinc adj oxide) with (smooth\$4 planar\$ flat\$4) same migra\$             | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2006/09/24 22:31 |
| L17 | 2     | "438"/\$.ccls. and (zno zinc adj oxide) with ( planar\$ ) same migra\$                             | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2006/09/24 22:31 |
| L18 | 89    | "438"/\$.ccls. and (zno zinc adj oxide) with (smooth\$4 planar\$ )                                 | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2006/09/24 22:45 |
| L19 | 68    | "438"/\$.ccls. and (zno zinc adj oxide) with (anneal\$)  | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON  | 2006/09/24 22:45 |
| L22 | 50506 | (zinc oxide zno ) and sinter\$   | USPAT                        | OR | OFF | 2006/09/24 23:09 |
| L23 | 10714 | (zinc adj oxide zno ) and sinter\$   | US-PGPUB;<br>USPAT           | OR | OFF | 2006/09/24 23:09 |
| L24 | 2730  | (zinc adj oxide zno ) same sinter\$  | US-PGPUB;<br>USPAT           | OR | OFF | 2006/09/24 23:13 |
| L25 | 55    | "438"/\$.ccls. and (zinc adj oxide zno ) same sinter\$   | US-PGPUB;<br>USPAT           | OR | OFF | 2006/09/24 23:10 |
| L26 | 112   | (zinc adj oxide zno ) same sinter\$ same vapor\$   | US-PGPUB;<br>USPAT           | OR | OFF | 2006/09/24 23:13 |
| L27 | 55    | (zinc adj oxide zno ) with sinter\$ same vapor\$   | US-PGPUB;<br>USPAT           | OR | OFF | 2006/09/24 23:13 |
| S1  | 25774 | yttri\$  | USPAT                        | OR | OFF | 2006/09/22 13:06 |
| S2  | 607   | yttri\$ and nitride with semiconductor   | USPAT                        | OR | OFF | 2006/09/22 13:07 |
| S3  | 1226  | yttri\$ and nitride with semiconductor   | US-PGPUB;<br>USPAT           | OR | OFF | 2006/09/22 13:07 |
| S4  | 1311  | yttri\$ and (inn indium adj nitride nitride with semiconductor)                                    | US-PGPUB;<br>USPAT           | OR | OFF | 2006/09/22 13:08 |

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|     |        |   |                      |    |     |                  |
|-----|--------|---|----------------------|----|-----|------------------|
| S5  | 1322   | ( ysz yttri\$) and (inn indium adj nitride nitride with semiconductor)  | US-PGPUB; USPAT      | OR | OFF | 2006/09/22 13:08 |
| S6  | 458    | ( ysz yttri\$ with zircon\$) and (inn indium adj nitride nitride with semiconductor)  | US-PGPUB; USPAT      | OR | OFF | 2006/09/22 13:09 |
| S7  | 459    | ( ysz yzn yttri\$ with zircon\$) and (inn indium adj nitride nitride with semiconductor)  | US-PGPUB; USPAT      | OR | OFF | 2006/09/22 13:11 |
| S8  | 100675 | ( ysz yzr yttri\$ with zircon\$) and (inn indium adj nitride nitride with semiconductor) (zno\$ zinc adj oxide zn adj o)                                | US-PGPUB; USPAT      | OR | OFF | 2006/09/22 13:15 |
| S9  | 78     | ( ysz yzr yttri\$ with zircon\$) and (inn indium adj nitride nitride with semiconductor) and (zno\$ zinc adj oxide zn adj o)                            | US-PGPUB; USPAT      | OR | OFF | 2006/09/22 17:28 |
| S10 | 2512   | ysz   | US-PGPUB; USPAT      | OR | OFF | 2006/09/22 13:15 |
| S11 | 1662   | ysz and yttria  | US-PGPUB; USPAT      | OR | OFF | 2006/09/22 13:15 |
| S12 | 82     | ysz and yttria and zno  | US-PGPUB; USPAT      | OR | OFF | 2006/09/22 13:15 |
| S13 | 9      | ysz and yttria and zno and gan  | US-PGPUB; USPAT      | OR | OFF | 2006/09/22 13:15 |
| S14 | 45     | ( ysz yzr yttri\$ with zircon\$) and (inn indium adj nitride nitride with semiconductor) and (zno\$ zinc adj oxide zn adj o) and (axis plane)           | US-PGPUB; USPAT      | OR | OFF | 2006/09/22 13:23 |
| S15 | 21     | ( ysz yzr yttri\$ with zircon\$) and (inn indium adj nitride nitride with semiconductor) and (zno\$ zinc adj oxide zn adj o) and (axis and plane)       | US-PGPUB; USPAT      | OR | OFF | 2006/09/22 15:41 |
| S16 | 20     | ("11162852" 11-162852 "162852")   | US-PGPUB; USPAT; JPO | OR | OFF | 2006/09/22 13:37 |
| S17 | 3      | 09-45960 "0945960" "09045960"   | US-PGPUB; USPAT; JPO | OR | OFF | 2006/09/22 13:38 |
| S18 | 7      | 08-255932 "08255932" 8-255935 "8255932" "080255932"   | US-PGPUB; USPAT; JPO | OR | OFF | 2006/09/22 13:39 |
| S19 | 8      | ( ysz yzr yttri\$ with zircon\$) and ( ingan ni near ga near n indium adj gallium adj nitride) and (zno\$ zinc adj oxide zn adj o) and (axis and plane) | US-PGPUB; USPAT      | OR | OFF | 2006/09/22 14:34 |

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|     |      |  |                    |    |     |                  |
|-----|------|--|--------------------|----|-----|------------------|
| S20 | 1696 | 10/265\$   | US-PGPUB;<br>USPAT | OR | OFF | 2006/09/22 14:00 |
| S21 | 174  | 10/2657\$  | US-PGPUB;<br>USPAT | OR | OFF | 2006/09/22 14:00 |
| S22 | 19   | 10/26571\$   | US-PGPUB;<br>USPAT | OR | OFF | 2006/09/22 14:01 |
| S23 | 2    | 10/265719\$  | US-PGPUB;<br>USPAT | OR | OFF | 2006/09/22 14:01 |
| S24 | 13   | ( ysz yzr yttri\$ with zircon\$) and ( ingan ni near ga near n indium adj gallium adj nitride) and (zno\$ zinc adj oxide zn adj o) and ("111") | US-PGPUB;<br>USPAT | OR | OFF | 2006/09/22 14:33 |
| S25 | 22   | ( ysz yzr yttri\$ with zircon\$) and ( ingan ni near ga near n indium adj gallium adj nitride) and ("111")                                     | US-PGPUB;<br>USPAT | OR | OFF | 2006/09/22 14:34 |
| S26 | 22   | ( ysz yzr yttri\$ with zircon\$) and ( ingan ni near ga near n indium adj gallium adj nitride) and "111"                                       | US-PGPUB;<br>USPAT | OR | OFF | 2006/09/22 14:36 |
| S27 | 48   | ( ysz yzr yttri\$ with zircon\$) and ( ingan ni near ga near n indium adj gallium adj nitride inn indiem adj nitride in adj n ) and "111"      | US-PGPUB;<br>USPAT | OR | OFF | 2006/09/22 14:37 |
| S28 | 49   | ( ysz yzr yttri\$ with zircon\$) and ( ingan ni near ga near n indium adj gallium adj nitride inn indium adj nitride in adj n ) and "111"      | US-PGPUB;<br>USPAT | OR | OFF | 2006/09/22 14:37 |
| S29 | 35   | ( ysz yzr yttri\$ with zircon\$) and ( inn indium adj nitride in adj n ) and "111"   | US-PGPUB;<br>USPAT | OR | OFF | 2006/09/22 14:38 |
| S30 | 8    | ( ysz yzr yttri\$ with zircon\$) and atomic adj step   | US-PGPUB;<br>USPAT | OR | ON  | 2006/09/22 15:45 |
| S31 | 2890 | ( ysz yzr yttri\$ with zircon\$) same (anneal\$ heat\$4)   | US-PGPUB;<br>USPAT | OR | ON  | 2006/09/22 15:46 |
| S32 | 4    | ( ysz yzr yttri\$ with zircon\$) with (anneal\$ heat\$4) and (indium adj nitride inn in adj n) and "111"                                       | US-PGPUB;<br>USPAT | OR | ON  | 2006/09/22 15:46 |
| S33 | 82   | ("6045626").URPN.  | USPAT              | OR | OFF | 2006/09/22 17:26 |
| S34 | 82   | ("6045626").URPN.  | USPAT              | OR | OFF | 2006/09/22 17:27 |
| S35 | 12   | ( ysz yzr yttri\$ with zircon\$) same (heat\$4 temperature anneal\$) and (inn indium adj nitride )   | US-PGPUB;<br>USPAT | OR | ON  | 2006/09/22 17:33 |
| S36 | 2    | ( ysz yzr yttri\$ with zircon\$) same (heat\$4 temperature anneal\$) and (inn indium adj nitride ) same ( ysz yzr yttri\$ with zircon\$)       | US-PGPUB;<br>USPAT | OR | ON  | 2006/09/22 17:29 |

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|     |      |   |  |    |    |                  |
|-----|------|---|--|----|----|------------------|
| S37 | 5539 | ( ysz yzr yttri\$ with zircon\$) same (heat\$4 temperature anneal\$)  | US-PGPUB;<br>USPAT                                 | OR | ON | 2006/09/22 17:33 |
| S38 | 61   | "438"/\$.ccls. and ( ysz yzr yttri\$ with zircon\$) with (heat\$4 temperature anneal\$)                                   | US-PGPUB;<br>USPAT                                 | OR | ON | 2006/09/22 17:34 |
| S39 | 37   | "438"/\$.ccls. and ( ysz yzr yttri\$ with zircon\$) with (heat\$4 temperature anneal\$) and nitride                       | US-PGPUB;<br>USPAT                                 | OR | ON | 2006/09/22 17:50 |
| S40 | 24   | ( ysz yzr yttri\$ with zircon\$) with (heat\$4 temperature anneal\$) and (inn indium adj nitride gan gallium adj nitride) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO | OR | ON | 2006/09/22 18:43 |
| S41 | 24   | ( ysz yzr yttri\$ with zircon\$) with (heat\$4 temperature anneal\$) and (inn indium adj nitride gan gallium adj nitride) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO | OR | ON | 2006/09/22 18:43 |
| S42 | 10   | "6521929"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO | OR | ON | 2006/09/24 14:42 |
| S43 | 221  | ferroelectric\$ same mim  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO | OR | ON | 2006/09/22 18:45 |
| S44 | 122  | ferroelectric\$ with mim  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO | OR | ON | 2006/09/22 18:45 |
| S45 | 363  | (indium adj nitride inn) same axis same "111"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO | OR | ON | 2006/09/24 14:42 |
| S46 | 85   | (indium adj nitride inn) same c with axis same "111"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO | OR | ON | 2006/09/24 14:42 |
| S47 | 1    | (indium adj nitride inn) same c with axis same "111" same (ysz yttrium)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO | OR | ON | 2006/09/24 15:04 |

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|     |        |  |  |    |    |                  |
|-----|--------|--|--|----|----|------------------|
| S48 | 1      | "6045626".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO | OR | ON | 2006/09/24 16:54 |
| S49 | 138340 | (zno zinc adj oxide)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO | OR | ON | 2006/09/24 16:54 |
| S50 | 3346   | (zno zinc adj oxide) and (gan galliu adj nitride)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO | OR | ON | 2006/09/24 16:56 |
| S51 | 3346   | (zno zinc adj oxide) and (gan galliu adj nitride) and ("000-1" S49)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO | OR | ON | 2006/09/24 16:57 |
| S52 | 1990   | (zno zinc adj oxide) same (gan galliu adj nitride) and ("000-1" S49)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO | OR | ON | 2006/09/24 16:58 |
| S53 | 407    | (zno zinc adj oxide) same (gan galliu adj nitride) same (cvd deposit\$4 sputter\$ pvd) and ("000-1" S49)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO | OR | ON | 2006/09/24 16:59 |
| S54 | 407    | (zno zinc adj oxide) same (gan galliu adj nitride) same (cvd deposit\$4 sputter\$ pvd) and ("000-1" S49) same (zno zinc adj oxide)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO | OR | ON | 2006/09/24 16:59 |
| S55 | 395    | (zno zinc adj oxide) same (gan galliu adj nitride) same (cvd deposit\$4 sputter\$ pvd) and ("000-1" S49) same (zno zinc adj oxide)   | US-PGPUB;<br>USPAT;<br>USOCR                       | OR | ON | 2006/09/24 16:59 |
| S56 | 44     | (zno zinc adj oxide) same (gan galliu adj nitride) same (cvd deposit\$4 sputter\$ pvd) and ("000-1" S49) same (zno zinc adj oxide) and (gan gallium adj nitride) with axis | US-PGPUB;<br>USPAT;<br>USOCR                       | OR | ON | 2006/09/24 17:15 |

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|     |     |   |                              |    |    |                  |
|-----|-----|---|------------------------------|----|----|------------------|
| S57 | 23  | (zno zinc adj oxide) same (gan galliu adj nitride) same (cvd deposit\$4 sputter\$ pvd) same (temperature degree celsius) and ("000-1" S49) same (zno zinc adj oxide) and (gan gallium adj nitride) with axis          | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2006/09/24 17:30 |
| S58 | 125 | (zno zinc adj oxide) same (gan galliu adj nitride) same (cvd deposit\$4 sputter\$ pvd) same (temperature degree celsius) and ("000-1" S49) same (zno zinc adj oxide) and (gan gallium adj nitride)                    | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2006/09/24 17:30 |
| S59 | 34  | "438"/\$.ccls. and (zno zinc adj oxide) same (gan galliu adj nitride) same (cvd deposit\$4 sputter\$ pvd) same (temperature degree celsius) and ("000-1" S49) same (zno zinc adj oxide) and (gan gallium adj nitride) | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2006/09/24 18:20 |
| S60 | 29  | "438"/\$.ccls. and (zno zinc adj oxide) same (gan galliu adj nitride) same (cvd deposit\$4 sputter\$ pvd) with (temperature degree celsius) and ("000-1" S49) same (zno zinc adj oxide) and (gan gallium adj nitride) | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2006/09/24 21:53 |